## MINING THE PEBBLE DEPOSIT: Issues of 404 compliance and unacceptable environmental impacts EXECUTIVE SUMMARY

A number of groups have petitioned the United States Environmental Protection Agency (EPA) to initiate action under Section 404(c) of the Clean Water Act (CWA) to protect the fisheries of Bristol Bay from large-scale hardrock mining of the Pebble deposit in the headwaters of the Kvichak and Nushagak River drainages in southwestern Alaska. The Bristol Bay Native Corporation and Trout Unlimited have asked the authors of this report – both Clean Water Act experts with long and distinguished government careers – to prepare this report analyzing known information about mining the Pebble ore deposit and the potential impacts of doing so, and recommending potential 404(c) restrictions.

In order for EPA to consider 404(c) action, there must be a proposed discharge of dredged or fill material into the "waters of the United States," including wetlands, and there must be a probability that the discharge(s) would result in unacceptable adverse environmental impacts as these are defined in federal regulations. In determining whether the potential impacts are unacceptable, EPA considers whether the proposed discharges would comply with federal regulations governing the issuance of permits for such discharges.

READ THE FULL REPORT www.savebristolbay.org/mining-the-deposit-report



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"Mining the Pebble Deposit: Issues of 404 compliance and unacceptable environmental impacts" evaluates publicly available plans to mine the Pebble deposit, concluding that these plans would not comply with federal regulations. There appear to be less damaging alternatives available to the project sponsors to extract copper than mining the Pebble deposit. Even the smallest initial 25-year phase described by the project sponsors would result in the permanent destruction of well over 9200 acres of fish and wildlife habitat, including the loss of over 30 miles of stream habitats. The secondary and long-term downstream impacts may be far greater, as the mining operation would require the impoundment of billions of tons of waste rock and tailings, as well as the potential need for storage and perpetual treatment of very large quantities of waste water from seepage and runoff.

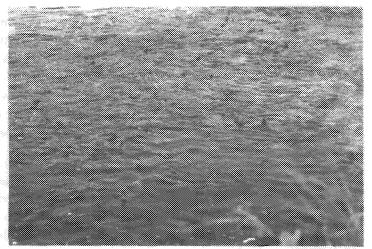
Compared to past projects where EPA determined impacts to fish and wildlife habitats were unacceptable pursuant to its 404(c) authority, the impacts of mining the Pebble deposit are unparalleled. The report concludes that from a regulatory standpoint, these impacts are environmentally unacceptable.

The report recommends restrictions that EPA could proactively impose on regulated discharges of dredged or fill material (i.e., mine waste) from mining the Pebble deposit. These restrictions include prohibitions on discharges of dredged or fill material:

- 1) into salmon spawning and rearing habitat;
- 2) that fails testing requirements to demonstrate that the material is not toxic to aquatic life; and
- 3) where its runoff or seepage would require treatment in perpetuity.

These restrictions are rooted in well-established precedents and long-standing practices and policies within the GWA 404 program.

Asserting these restrictions proactively could further the goals of the Clean Water Act by providing certainty and associated time and money savings to industry and the public-including the indigenous peoples of the region to whom the United States has a trust responsibility- as to what will be required of any proposed plan to mine that deposit.



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## ABOUT THE AUTHORS

William M. Riley had a distinguished career with USEPA working for nearly 25 years in the Seattle Office (Region 10). He retired in 2007 as the Director of the Office of Environmental Assessment and previously served as National Environmental Policy Act Coordinator, Regional Mining Coordinator, and Aquatic Resources Unit Manager.

Thomas G. Yocom is a former National Wetlands Expert for the U.S. Environmental Protection Agency, retiring in 2005. He previously served as a fishery biologist for the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. He has been a Wetlands Regulatory Scientist for the Huffman-Broadway Group since 2006.